

## ABSTRACT

An integrated architecture called LOBS using enhanced/extended MPLS as a control plane and OBS as a switching paradigm that avoids optical/electrical/optical conversion of data at intermediate nodes is proposed. The structure of a LOBS node and the AP interface between an edge LOBS node and protocol data unit devices such as electronic LSR's are proposed, so are the structure of a LOBS control packet, burst assembly/disassembly methods, methods for fault detection/localization and recovering from lost bursts, and LOBS specific information for distribution using extended IGP protocols for traffic engineering.